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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,285	10/27/2003	Robert Allen Jones	S1201.11U	2770

7590 07/05/2005

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EXAMINER	
WEIER, ANTHONY J	

ART UNIT	PAPER NUMBER
1761	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,285	JONES, ROBERT ALLEN	
	Examiner	Art Unit	
	Anthony Weier	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) *1-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II in the reply filed on 4/8/05 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 17-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 6,151,799).

Jones discloses a method of processing citrus peel wherein peel is cut (by pulping means) into particles to create a slurry of particles said particles are mixed with oil and water from said peel within a tank wherein the slurry is separated into wet solids particles and liquids using a shaker table. Next, said liquid is removed and transferred to a water/oil separation means comprising a 3-stage centrifuges which separate the liquid into solids (treated as waste; considered the waste sludge called for in the instant claims), water (liquid products as called for in the instant claims), and a light phase wherein the water is reused and the light phase is further treated to produce a peel oil or high grade peel oil as called for in the instant claims by treating with centrifuges. In addition, the wet solid particles separated on the shaker are further treated by pressing same into a pressed cake and filtrate of water/oil said water, wherein the pressed cake

is further fragmented and dried (considered to be the pectin pomace as called for in claim) and wherein said filtrate is treated with heat evaporators to evaporate water from the filtrate to be condensed and recycled back into the system (col. 5, line 256 – col. 6, line 39; col. 6, lines 40-67; col. 7, lines 1-20).

The claims differ in that during the slurry treatment, water is added in addition to heating and mixing the slurry. It should be first noted, however, with respect to the slurry, although Jones does mention that water needs be added, it does not limit same from occurring. It would have been obvious to one having ordinary skill in the art at the time of the invention to have added water to aid in the mixing of the components of the slurry and to have heated same to aid in the mixing. Heating is frequently used when mixing food articles, and it would have been further obvious to have incorporated same within this step.

The claims further call for evaporating the liquid products material into water for recycling, food grade citrus peel juice and aromas and essences. Although Jones discloses simply reusing this water without further refinement, such arrangements would have been well within the purview of a skilled artisan, and, absent a showing of unexpected results, it would have been further obvious to have further derived the juice, water, aroma and essence from the water prior to returning same to the process.

The claims further call for the solid particles of the pressed cake to be treated with water and heated wherein the liquid is removed from same and further water is removed from the solid particles by additional pressing and recycling some of the water produced and discarding another portion of it. Although Jones discloses only a single

pressing and treatment of the pressed cake, it would have been well within the purview of a skilled artisan to repeat the extraction step one or more times for removing additional water with extract and, in effect, removing even more of the oil that may still be present in the pressed cake. It would have been obvious to one having ordinary skill in the art at the time of the invention to have repeated steps as a result effective variable depending on the degree of result desired. As for the water removed during the second pressing and its use in recycling and discarding, these are two conventional options within the food extraction industry. Clearly, Jones has set forth step of recycling water in other aspects of the invention disclosed therein, and it would have been further obvious to have recycled same to lower the cost of using fresh water. In addition, it would have been obvious, albeit more wasteful, to simply discard some of the water or water that is not needed. Again, these determinations would have been well within the purview of a skilled artisan, and it would have been further obvious to have arrived at the decision of recycling some water and discarding other amounts as a matter of preference.

The claims further call for the addition of water to the pressed cake during the second extraction of same and to do so with heat and mixing. As mentioned above, it would have been further obvious to have performed a second extraction (or even third) as a matter of preference. Clearly, in order to extract further one would need to add additional water; water was originally added and with heat during the separation of the solids from liquids on the shaker table. It would have been obvious to one having ordinary skill in the art at the time of the invention to have added water to aid in the

mixing of the components and further extract the pressed cake material and to have achieved same using heat. It is notoriously well known to employ heat in aqueous extractions (e.g. coffee brewing) as an aid to better extractions. It would have been further obvious to have employed heating during the second extraction step to aid in the extraction as known.

Claim 18 further calls for the use of decanting during the processing of the liquid products. Decanting is notoriously well known for separation of liquids and solids and well within the purview of separation techniques utilized by one skilled in the art. It would have been further obvious to have incorporated decanting as a matter of preference, for example, as an alternative to manual skimming of congealed material when further purifying the peel oil (see col. 7, lines 1-20).

Claim 19 further calls for the particular particle size of the cut citrus peel. Although 0.1875 in falls within the range set forth in Jones (e.g. particles smaller than 1/8 cubic inch), it would have been obvious to one having ordinary skill in the art at the time of the invention to have arrived at such specific particle size as a matter of preference depending on, the degree of exposed surface area for extraction desired.

The claims further call for the particular temperature employed during heating of the slurry and of the water employed during the second extraction of the pressed cake. However, such determination would have been well within the purview of a skilled artisan, and it would have been further obvious to have arrived at such temperature through routine experimental optimization depending on the degree of mixing desired, cost involved, and the particular heating limits of the devices available.

Claims 22-24 refer to the particular heating strategy including time and temperature employed in drying the pectin pomace as well as the heating/time regarding the evaporation apparatus. Clearly, drying or evaporation may be achieved in a number of ways. For example, it is well known to dry or evaporate material to same effect at lower temperatures for longer times as an alternative to heating at higher temperature for shorter times. Moreover, it is not seen where breaking the process into steps would provide for a patentable distinction, particular when the same drying would be achieved with respect to the pectin pomace and the same evaporation would be effected with respect to the liquid products. Absent a showing of unexpected results, it would have been further obvious to one having ordinary skill in the art at the time of the invention to have employed heating or evaporation of the strategies of the instant claims as a matter of preference.

4. Claims 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones taken together with Chen et al.

The claims further call for debittering and pasteurizing said liquid products. It is well known to debitter and pasteurize citrus liquids. For example, Chen et al teaches debittering and pasteurizing of processed orange permeate (col. 3, lines 31-62). It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed such steps for their art recognized uses of providing a better tasting material while preserving same.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Weier
Primary Examiner
Art Unit 1761

Anthony Weier

6/24/05

June 24, 2005